# NCDOT Prioritization 3.0 Project Summary

**SPOT ID:** H090366 **Mode:** Highway **Status:** Submitted

## US-15, US-501

**From/Cross Street:** I-40

**To:** US 15/501

**Length:** 1.95

**Specific Improvement Type:** 2 - Upgrade Arterial to Freeway/Expressway

**Project Category:** Statewide Mobility

**TIP#:** U-2807

**Fully Funded in Draft STIP? No**

**Cost to NCDOT:** $130,644,000

**Description:**

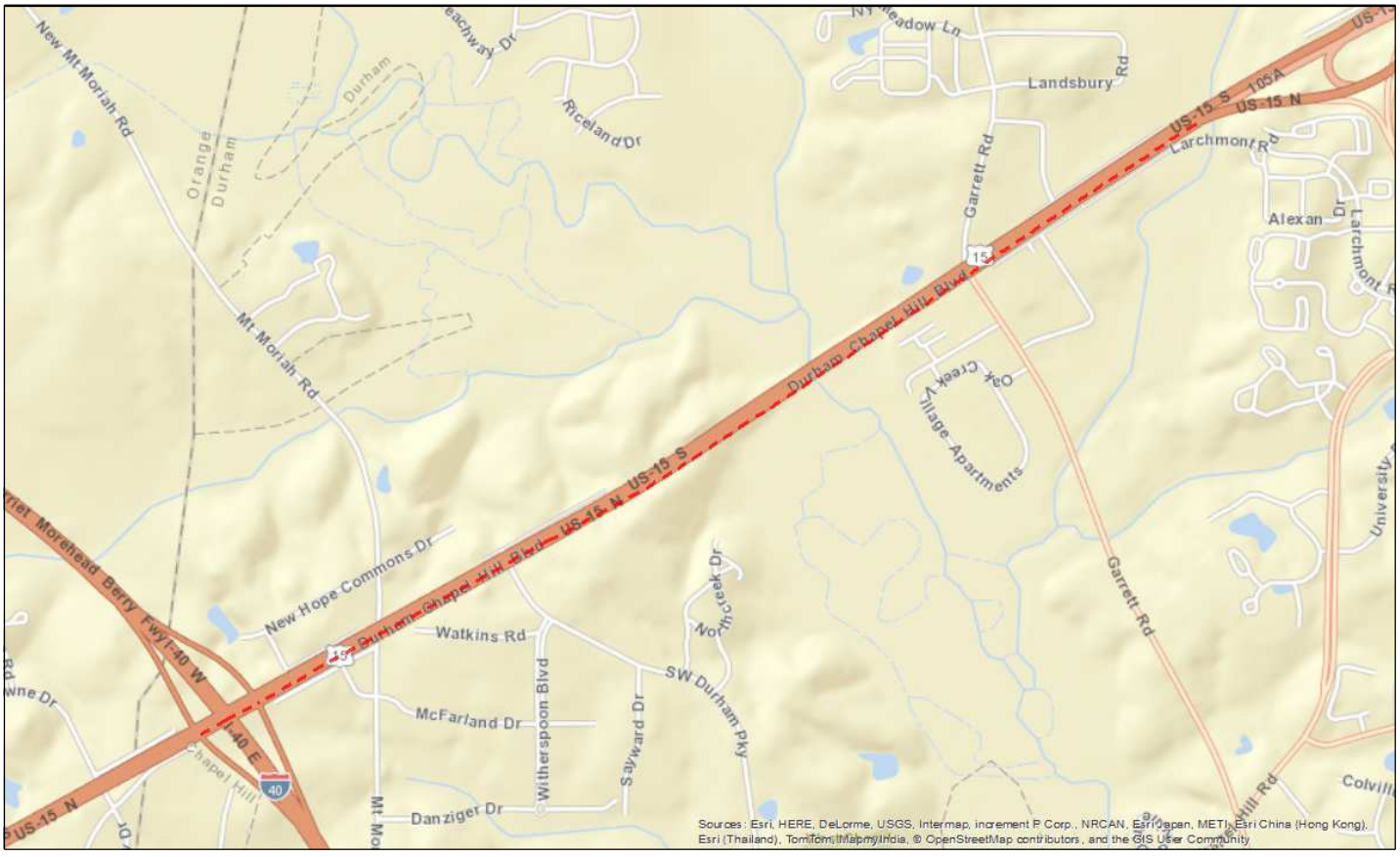
I-40 to US 15/501 Bypass in Durham. Major Corridor Upgrade

**Division(s):** Division 5

**County(s):** DURHAM

**MPOS(s)/RPO(s):** Durham Chapel Hill Carrboro MPO

## Project Location



**Statewide Mobility Total Score: 34.75**

| Quantitative Score | | Division Engineer Local Input Points | MPO/RPO Local Input Points |
|---|---|---|---|
| Congestion (V/C) (30%) | 73.00 | N/A | N/A |
| Safety (10%) | 76.99 | | |
| Economic Competitiveness (10%) | 25.45 | | |
| Multimodal + [Freight & Military] (20%) | 7.67 | | |
| [Travel Time] Benefit/Cost (30%) | 3.57 | | |
| **Totals: Weight: 100% Weighted Score: 34.75** | | | |

**Regional Impact Total Score: 51.84**

| Quantitative Score | | Division Engineer Local Input Points | MPO/RPO Local Input Points |
|---|---|---|---|
| Congestion (V/C) (25%) | 73.00 | Percent: 15% | Percent: 15% |
| Safety (10%) | 76.99 | Points: 0 | Points: 100 |
| [Travel Time] Benefit/Cost (25%) | 3.57 | | |
| Accessibility / Connectivity (10%) | 100.00 | | |
| **Totals: Weight: 70% Weighted Score: 36.84** | | | |

**Division Needs Total Score: 23.01**

| Quantitative Score | | Division Engineer Local Input Points | MPO/RPO Local Input Points |
|---|---|---|---|
| Congestion (V/C) (20%) | 73.00 | Percent: 25% | Percent: 25% |
| Safety (10%) | 76.99 | Points: 0 | Points: 0 |
| [Travel Time] Benefit/Cost (20%) | 3.57 | | |
| **Totals: Weight: 50% Weighted Score: 23.01** | | | |

## Project Data *

### Existing Conditions

| | |
|---|---|
| Existing Cross-Section: | |
| Speed Limit: | 52 |
| Length (miles); | 1.95 |
| Facility Type: | Arterial |
| Access Control: | Limited |
| Functional Classification: | Other Principal Arterial-Other Freeway |
| Terrain Type: | Rolling |
| Lane Width: | 12 |
| Paved Shoulder Width: | 3 |
| Roadway has Curb & Gutter? | No |
| Volume (AADT): | 45742.25 |
| Capacity: | 50170.73 |
| Volume/Capacity Ratio: | 0.91 |
| % Autos: | 97% |
| % Trucks: | 3% |
| Truck Volume: | 1533.1 |
| Crash Density: | 90.36 |
| Crash Severity: | 51.22 |
| Critical Crash Rate: | 89.41 |
| Crash Frequency: | 0 |
| Severity Index: | 0 |
| County Tier Designation: | 3 |
| Non-Interstate STRAHNET Route? | No |
| Average Commuting Time: | 20 |
| Existing Median Type (for Cost Estimation): | Divided |
| Pavement Condition Rating: | 97 |
| Actual Congested Speed: | 31.32 |
| Travel Time Index: | 1.67 |

### Project Benefits

| | |
|---|---|
| Project Cross-Section: | 6B - 6 Lane Divided (27' Median with Jersey Barrier with Paved Shoulders |
| Speed Limit: | 60 |
| Length (miles): | 1.95 |
| Facility Type: | Freeway |
| Access Control: | Full |
| Functional Classification: | Other Principal Arterial-Other Freeway |
| TerrainType: | Rolling |
| DOT Design Lane Width: | 12 |
| DOT Design Paved Shoulder Width: | 10 |
| Travel Time Savings for 30 Years (Total): | 20884300.79 |
| Travel Time Savings for 30 Years (Autos): | 20184340.32 |
| Travel Time Savings for 30 Years (Trucks): | 699960.47 |
| Long-Term Employment: | 297 |
| % Change in Economy: | 0.00021197 |
| Provides Direct Connection to Transportation Terminal? | No |
| Does project upgrade how the roadway functions? | Yes |
| In CTP or LRTP? | No |
| CTP/LRTP Name: | |
| CTP/LRTP Completion Year: | |
| Submitted by: | Division 5 |

* Data reflects calculations which include weighted averages (where applicable) and represent raw output from the Department's SPOT On!ine tool and associated databases.

## Project Ownership

**Division**

| Division | Percent | Regional Impact | Division Needs |
|---|---|---|---|
| Division 5 | 100% | 0 | 0 |
| | 0% | 0 | 0 |
| | 0% | 0 | 0 |
| **TOTAL Division Points** | | **0** | **0** |

**MPO/RPO**

| MPO/RPO | Percent | Regional Impact | Division Needs |
|---|---|---|---|
| Durham Chapel Hill Carrboro MPO | 100% | 100 | 0 |
| | 0% | 0 | 0 |
| | 0% | 0 | 0 |
| **TOTAL MPO/RPO Points** | | **100** | **0** |

## Project Cost and Source

| | | |
|---|---|---|
| Construction Cost: | $130,644,000 | TIP Unit |
| Right-of-Way Cost: | $0 | Cost Estimation Tool |
| Utilities Cost: | $0 | Cost Estimation Tool |
| Total Project Cost: | $130,644,000 | |
| Other Funding: | $0 | None |
| **Cost to NCDOT :** | **$130,644,000** | |